

## Claims

1. A method for treating a patient having liver cancer, said method comprising administering to said patient an effective amount of a pharmaceutical composition comprising a mammalian asialo-interferon.
2. The method of claim 1, wherein said liver cancer expresses the asialo-glycoprotein receptor.
3. The method of claim 2, wherein said liver cancer overexpresses the asialo-glycoprotein receptor.
4. The method of claim 1, wherein said liver cancer is selected from the group consisting of diffuse-type hepatocellular carcinoma, febrile-type hepatocellular carcinoma, cholestatic hepatocellular carcinoma, hepatoblastoma, hepatoid adenocarcinoma, and focal nodular hyperplasia.
5. The method of claim 1, wherein said asialo-interferon is a human asialo-interferon.
6. The method of claim 5, wherein said human asialo-interferon is an asialo-interferon- $\alpha$ .
7. The method of claim 5, wherein said human asialo-interferon is an asialo-interferon- $\beta$  or an asialo-interferon- $\gamma$ .
8. The method of claim 1, wherein said effective amount is 0.05-1.5 mg/week.

9. The method of claim 1, wherein said method further comprises a second anti-neoplastic therapy.

10. The method of claim 9, wherein said second anti-neoplastic therapy is chemotherapy or radiation therapy.

11. A method for treating a patient having liver cancer, said method comprising the steps of:

(a) testing said liver cancer for expression of an asialo-glycoprotein receptor; and

(b) if said testing step (a) is indicative that said liver cancer expresses an asialo-glycoprotein receptor, administering to said patient an effective amount of a composition comprising a mammalian asialo-interferon.

12. The method of claim 11, wherein said testing in step (a) comprises performing a liver biopsy.

13. The method of claim 11, wherein said liver cancer overexpresses the asialo-glycoprotein receptor.

14. The method of claim 13, wherein said testing in step (a) comprises non-invasive imaging the liver of said patient.

15. The method of claim 11, wherein said liver cancer is selected from the group consisting of diffuse-type hepatocellular carcinoma, febrile-type hepatocellular carcinoma, cholestatic hepatocellular carcinoma, hepatoblastoma, hepatoid adenocarcinoma, and focal nodular hyperplasia.

16. The method of claim 11, wherein said asialo-interferon is a human asialo-interferon.

17. The method of claim 16, wherein said human asialo-interferon is asialo-interferon- $\alpha$ .

18. The method of claim 16, wherein said human asialo-interferon is asialo-interferon- $\beta$  or asialo-interferon- $\gamma$ .

19. The method of claim 11, wherein said effective amount is 0.05-1.5 mg/week.

20. The method of claim 11, wherein said method further comprises a second anti-neoplastic therapy.

21. A method for treating a metastatic cancer of the liver, said method comprising administering to said patient an effective amount of a pharmaceutical composition comprising a mammalian asialo-interferon.

22. The method of claim 21, wherein said metastatic cancer is selected from the group consisting of metastatic prostate cancer, metastatic colorectal cancer, metastatic breast cancer, metastatic lung cancer, metastatic pancreatic cancer, metastatic melanoma, metastatic leukemia, and metastatic lymphoma.

23. The method of claim 21, wherein said human asialo-interferon is asialo-interferon- $\alpha$ , asialo-interferon- $\beta$  or asialo-interferon- $\gamma$ .